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# INCREASING THE LEARNING MOTIVATION OF THREE-DIMENSIONAL MATERIAL FOR 5<sup>TH</sup> GRADE IN PUBLIC ELEMENTARY SCHOOL 2 PALAAN THROUGH SALAM MEDIA “SNAKE & LADDER MATH”

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## *Abstract*

**Keywords:**  
Learning  
Media;  
SALAM; Three-  
Dimensional  
Material;  
Learning  
Motivation.

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*Sometimes, it is easy for students to feel bored during the learning process. The saturation experienced by students can be caused by the large amount of material that must be mastered, one of which is Three-Dimensional material. In elementary school, mathematics is generally a less desirable subject. Therefore, elementary school teachers need to package it using learning media that are in accordance with students’ character. This community services seeks to trace the effective learning media applied in 5<sup>th</sup> grade of SDN 2 Palaan through a descriptive approach and inductively analysis. The result is that the SALAM learning media “Snake & Ladder Math” is an appropriate learning media for Three-Dimensional material.*

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### Abstrak

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**Kata kunci:**

*Media  
Pembelajaran;  
SALAM; Materi  
Bangun Ruang;  
Motivasi  
Belajar.*

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Dalam proses pembelajaran terkadang siswa mudah untuk merasa jenuh. Kejenuhan yang dialami siswa bisa disebabkan oleh banyaknya materi yang harus dikuasai, salah satunya materi Bangun Ruang. Di ranah sekolah dasar, secara umum pelajaran matematika merupakan pelajaran yang kurang diminati. Oleh karena itu, guru sekolah dasar perlu mengemasnya dengan menggunakan media pembelajaran yang sesuai dengan karakter siswa. Pengabdian ini berusaha menelusuri media pembelajaran efektif yang diterapkan di kelas 5 SDN 2 Palaan melalui pendekatan deskriptif dan dianalisis secara induktif sehingga diperoleh hasil bahwa media pembelajaran SALAM “*Snake & Ladder Math*” merupakan salah satu media pembelajaran yang tepat digunakan untuk materi Bangun Ruang.

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### Preliminary

Teaching and learning activities are interactive processes between teachers and students in an institution or unit of educational institutions. As a component in the learning process, the teacher plays a very important role. The teacher must package the material as attractive as possible so that students become motivated and excited to study the subject matter. Using instructional media is one of the elements that can make students enthusiastic about learning because it can help simplify complex concepts so the material can be understood easily (Kristanto, 2016, p. 1).

Being a teacher is not only being able to teach but also making the classroom atmosphere active and conducive. Teachers are also required to be creative and innovative in making learning media (Oktiani, 2017, p. 218). Learning media helps increase students' attention and activates all five senses so that students are learning objects and subjects. Three-Dimensional material is one of the 5<sup>th</sup>

grade math subjects at public elementary school 2 Palaan, which is difficult to understand due to several factors, including complicated volume formulas, difficulty calculating powers of three, and the immature concept of flat shapes.

However, using fun learning media can minimise Three-Dimensional material that seems difficult to understand. Therefore, it is important to use various creative and innovative learning media for students and can liven up the classroom atmosphere, one of which is the SALAM “Snake & Ladder Math”. This media is very appropriate to use after the teacher explains the material or when they are about to face an exam as evaluation material to refresh the brain. This media makes the learning process easier for students to follow and more enjoyable so that they become more motivated and active in the learning process (Ekayani, 2017, p. 3).

## Method

This learning media was developed by the KKM 188 group of UIN Malang at SDN 2 Palaan, Sukoyuwono Hamlet, Ngadjum District. The reason behind the SALAM learning media is that those 5<sup>th</sup> grade students at SDN 2 Palaan are bored with mathematics. Besides that, they needed help understanding mathematics regarding the material about Three-Dimensional, so the KKM 188 group took the initiative to modify the snake and ladder game into learning media.

This paper uses a Asset Based Communities Development (ABCD) method based on post-positivism, post-modernism, and naturalistic-interpretive philosophies. Research with this model seeks to build real and understand its meaning and is carried out directly to data sources, and researchers as key instruments (Sugiyono, 2015, p. 13). The approach used is a descriptive approach that focuses on individual or group information regarding the learning media used through direct observation and filling out questionnaires. Furthermore, the writer uses inductive analysis techniques on the

data obtained so that the writer can know the reality and understand that a particular learning media can increase student learning motivation.

Before carrying out this activity, we first carry out problem identification and find solutions to problems. The following are the stages of work carried out:

1. Identification of problems. Identify problems that occur in the classroom intending to improve learning outcomes. There is a sense of boredom that was one of the problems in the classroom when learning took place so that students could not understand what was being taught.
2. Looking for solutions to problems. Solutions can be found when knowing the problems that occur. The solution that can be taken is to make interesting learning media.
3. Selection of relevant learning media. Learning media is a teacher assistance tool used in the teaching process so that the knowledge to be conveyed becomes more understandable to students and the goals in learning can be achieved effectively and efficiently (Nurrita, 2018, p. 171).
4. Modifying the snake and ladder game into a new learning media. Making projects (snake and ladder) to support the implementation of activities.
5. Practice or implementation of activities.
6. Improvement and refinement of this activity are carried out by improving and perfecting the game's rules to maximize the perceived impact.

## Results and Discussion

### *Learning Media*

Learning media consists of two words: "media" and "learning". The word media means intermediary or introduction; while the word learning is defined as a condition to help someone carry out

the learning activities (Kristanto, 2016, p. 5). Latuheru stated that learning media are materials, tools, and techniques used in teaching and learning activities with the intention that the scholarly communication interaction process between teachers and students can take place effectively and efficiently (Mashuri, 2019, p. 4).

According to Sadiman et al (Mashuri, 2019, p. 4) Media is anything that is used to convey messages from senders and recipients so that they can stimulate thoughts, feelings, concerns and interests as well as students' attention in such a way that the learning process occurs. Based on the understanding that has been given, learning media is everything that is used in learning activities that convey messages/information that can stimulate students' thoughts so that the process of educational communication interaction between teachers and students can take place effectively.

Learning media has an important role in the learning process. The use of instructional media can assist educators in conveying their learning material. The function of learning media is to increase the stimulation of students in learning activities. The following are the benefits of learning media : (Hamid et al., 2020, pp. 7–8):

1. Helping the learning process that takes place between educators and students. Learning media assist educators in conveying learning material, while participants are assisted and easier to understand the concept of material presented by educators. Thus, knowledge transfer and value transfer can be carried out optimally.
2. Increasing the interest and motivation of students in the learning process, the curiosity and enthusiasm of students increases, and interactions between students, educators and learning resources occur interactively. It can help convey material that is abstract to be more concrete.
3. Can overcome the limitations of space, time, energy, and sensory power. Some complex learning materials require a long space and time for delivery. Therefore, learning media can be adapted

to the material's characteristics, so these limitations can be overcome. For example, online learning media, e-learning, mobile learning, and web-based learning. Which can be done anytime and anywhere across the boundaries of space and time. Learning materials can be accessed anytime and anywhere.

Learning media can be adapted to student learning styles to provide opportunities and choices for students according to their learning styles, both with a tendency for visual, auditory, and kinesthetic learning styles. With the media, learning becomes more varied. Monotonous learning tends to make students get bored quickly, so innovative learning media are needed to adapt to the material's characteristics and the students' characteristics. Learning becomes clearer, interesting, and becomes more interactive.

### ***SALAM "Snake & Ladder Math"***

SALAM stands for Snake & Ladder Math. Snake and ladder is a traditional game that is still played by children today (Wulanyani, 2013, p. 184). Snake and ladder media can be modified easily so that it is suitable to be brought into the learning environment. This new learning media framework is intended to keep students directly involved in learning activities. Students are happy in learning because what students feel is playing snake and ladder (Baiquni, 2016, p. 195).

After the SALAM learning media was implemented in the 5<sup>th</sup> grade of SDN 2 Palaan, the student's enthusiasm for learning while playing concepts increased. SALAM learning media can also function as enrichment material before exams or daily tests at the elementary school level.

The rules for playing are also very easy, like the snake and ladder game. Every time they throw the dice, students are asked to take one question and answer it correctly. If the answer is wrong, then he must take one step back. The fun learning innovation implemented by the KKM 188 group attracted more students, so they wanted to

continue the SALAM learning session. With the application of this media.

The following are the rules for playing SALAM (Snake & Ladder Math) learning media:

1. Students are divided into four groups (conditional).
2. Make student seats like the letter U.
3. Representatives from each group occupy the four chairs provided (it is better if the chairs are placed in the middle of the class so that other students can pay attention to the game).
4. The game is done like a game of snake and ladder.
5. Students are asked to take questions every time they roll the dice.
6. If the student answers correctly, he remains in that position.
7. If the student answers the question incorrectly, go back 1 step.
8. Opportunity to answer questions only once.
9. The maximum time to answer one question is 30 seconds. If within 30 seconds it has yet to be answered, it is considered wrong and must take one step back.
10. During the game, students are not allowed to open any references.

### *Three-Dimensional Shape*

James and James defined mathematics as the science of logic regarding shape, composition, quantity, and related concepts. Mathematics is divided into three major sections: algebra, analysis, and geometry. But some opinions say that mathematics is divided into four parts, namely arithmetic, algebra, geometry, and analysis, with arithmetic including number theory and statistics. (Rahmah, 2013, p. 3).

A three-dimensional figure is spatial, has volume, and is bounded by sides that limit the inside and outside. There are several kinds of three-dimensional space. Construct plane side spaces namely

blocks, cubes, prisms, and pyramids. Meanwhile, the curved side shapes are cylinders, cones, and spheres. The volume of a three-dimensional shape is a measure that expresses the quantity of space occupied by the space object itself (Arina et al., 2020, p. 171).

### *Learning Motivation*

Sudarwan defined motivation as encouragement, strength, need, pressure, enthusiasm, or a psychological mechanism that encourages a person or group of people to achieve certain achievements according to what they want. In line with Hakim, who argued that motivation is an impulse of will that causes a person to do an act to achieve a certain goal. While motivation, according to Huitt W., is an internal status or a condition that directs a person's behavior to act to achieve a goal actively. Gray also argues that motivation is several processes, which are external and internal to each individual, which lead to an enthusiastic, persistent, and consistent attitude in carrying out a particular thing or activity (Suprihatin, 2015, pp. 74–75).

Efforts that encourage someone to do something is the definition of the word 'motive', while motivation can be interpreted as a driving force (Sardiman, 2007, p. 73). Learning motivation is the driving force possessed by students to learn. In Sardiman's opinion, learning motivation is the overall driving force within students that gives rise to learning activities, which guarantees the continuity of learning activities and gives direction to learning activities so that the goals desired by the learning subject can be achieved.

Riduwan also said that motivation is a strength or a power that arises from students and is reflected in their learning readiness. According to William James, student motivation or interest is the biggest factor determining the level of student learning activity. The teacher's task is to try to optimize students' motivation and interest in the teaching and learning process so that the learning outcomes are optimal (Asrofi, 2008, pp. 14–15).



Makmun said that students' learning motivation could be seen from 8 indicators, (1) frequency of activities, (2) duration of activities, (3) persistence, (4) sacrifice, (5) level of inspiration, (6) fortitude and tenacity, (7) attitude towards activity objectives, and (8) result qualification (Andriani & Rasto, 2019, pp. 82–83). Meanwhile, according to Handoko, the level of student learning motivation is reflected in several indicators:(Suprihatin, 2015, p. 75)

- a) Strong intention to do something.
- b) Duration of learning time.
- c) Make learning a priority.
- d) Perseverance in doing the task.

Several indicators of learning motivation according to Sardiman: (Suprihatin, 2015, p. 75)

- a) Diligent in doing the task.
- b) Keep going when there are difficulties.
- c) Having curiosity and a high level of exploration.
- d) Likes to work independently.
- e) Easily bored with the routine.
- f) Can defend the argument.

In plain view and quantitatively, motivation cannot be measured clearly. However, several indicators indicate an increase in student learning motivation. This indicator can be seen through several factors such as (1) students' attention to the lesson, (2) students' enthusiasm for doing their assignments, (3) students' responsibilities in completing their work, (4) students' reactions to the stimulus given by the teacher, (5) feeling happy and satisfied after doing the task, and (6) students' mastery of the material presented (Sudjana, 2012, p. 17). With the emergence of an increase in that six indicators, it can be ascertained that student motivation has increased.

### *Application of SALAM Learning Media for 5<sup>th</sup> Grade SDN 2 Palaan, Ngadjum District, Malang Regency*

Students were asked to fill out the following questionnaire to respond to their learning motivation in using the SALAM “Snake & Ladder Math” media in the Mathematics Three-Dimensional material by placing a tick (✓) on the options to disagree, agree, and strongly agree. The following data is generated:

**Table. 1**  
*Student Questionnaire*

Questions	disagree	agree	strongly agree
1. I am more focused on learning Mathematics, especially on the Three-Dimensional material using SALAM learning media.	0	4	20
2. I am more enthusiastic about doing math assignments, especially on the material Three-Dimensional material using SALAM learning media.	0	6	18
3. I completed my assignments with full responsibility in learning Mathematics, especially on Three-Dimensional material using SALAM learning media.	2	10	12
4. I am challenged to answer the questions given by using SALAM media.	2	3	19
5. I really enjoy working on math assignments, especially on Three-Dimensional material using SALAM learning media.	3	12	9
6. I can master Three-Dimensional material easier if the teacher uses SALAM media. This is evidenced by the increased score of my assignments.	3	8	13

The SALAM learning media “Snake & Ladder Math” application to the three-dimensional material in 5<sup>th</sup> grade SDN 2 Palaan shows the results of a significant increase in learning motivation. The approach

taken to 24 students has proven to make it easier for students to learn difficult details by simply reading textbooks. Naturally, this media can improve students' cognitive and motoric skills.

Of the six indicators mentioned in the definition of learning motivation, the following is the form of improvement shown by students in the classroom. First, increasing student attention in the learning process. This is indicated by the absence of students who talk to themselves when playing SALAM media or when the game is in progress. Before playing learning media, students were still whispering or joking with their friends. Students may feel bored and think they can read the material independently at home.

However, after learning media is applied, students become more focused on the learning process. Moreover, this media is packaged attractively using a countdown flow. This is evidenced by the results of filling out the questionnaire; namely 17% of students agree, and 83% of students even strongly agree that this media increases their learning concentration.

Second, students seem more enthusiastic about doing assignments. This is shown by the enthusiasm and activeness of students in the process of answering questions. They often discuss (do questions and answers) with their friends to ensure that their answers are correct. As much as 25% of students agree, and 75% strongly agree that their enthusiasm increases with this model of learning media.

Third, students complete assignments with full responsibility after applying this learning media. The timely collection of assignments and more independent work on questions shows this. Students only cheat a little on friends. This can be seen when they are doing their assignments. The class atmosphere was quiet, even though some were joking or talking to their friends. Only 8% of all students, or two people, do not feel they are carrying out their duties with a sense of responsibility.

Fourth, as many as 92% of students positively react to the stimulus using SALAM learning media. Students are challenged to

answer questions so that their activity increases. Students understand the Three-Dimensional material better than before the application of this media. This is evidenced by the emergence of brief discussions between students the teacher accommodated.

Fifth, students show joy while applying this media, indicating interest and pleasure in using this media. In filling out the questionnaire, as many as 88% of students stated that they enjoyed working on the questions in this media and their implementation.

Sixth, the increase in learning motivation is also seen in the increase in mastery of the Three-Dimensional materials. The increase can see in daily scores and the emergence of the courage of students to express opinions when conducting joint discussions. As many as 33% of students agree, and 54% of students even strongly agree that they are more masterful of Three-Dimensional material after learning to use SALAM media.

## **Conclusion**

Three-dimensional material is quite complicated, especially if students need help understanding the concept of flat shapes. It is not easy for the teacher to convey this material because students get bored easily and complain a lot during the lesson. Therefore, in this case, the teacher needs learning media to motivate students to learn and achieve optimal understanding. Each student has different types and characteristics. Of course, the teacher must adapt the student's character to the learning media applied in the classroom. The SALAM learning media "Snake & Ladder Math" is one of the solutive media that can accommodate elementary school students' learning characteristics so that students become motivated and active in-class learning. The application of SALAM media makes students more courageous and self-confident, makes the class atmosphere active, conducive, and makes it easier for students to understand Three-Dimensional material.

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